

AMENDMENTS TO THE CLAIMS

Applicant amends claims 1, 5, 12, 17, and 18, and cancels claims 2-4 as follows:

1. (Currently amended) A three-dimensional image display device, comprising:
a display panel displaying at least one parallax image; and
a mask formed of a liquid crystal display panel having segments forming transparent regions and convertible regions alternately aligned along a horizontal direction, and formed in front of the display panel,

wherein the transparent and convertible regions of the mask correspond to the at least one parallax image of the display panel,

wherein a portion of the convertible regions that do not correspond to having no at least one parallax image becomes become transparent and a portion of the convertible regions that correspond to having at least one parallax image becomes become opaque, and

wherein the length for a segment of the transparent region is $p(D-d)/D$ and the length for a segment of the convertible region is $(n-1)p(D-d)/D$ where n is the number of parallax images, p is a pixel dimension, D is the distance from a viewer to the ~~mask~~ display panel, and d is the distance from the mask to the display panel.

2. (Cancelled)

3. (Cancelled)

4. (Cancelled)

5. (Currently amended) The device according to claim 4, wherein a left side of an upper transparent region and a right side of an adjacently lower transparent region are aligned,

6. (Original) The device according to claim 4, wherein a right side of an upper transparent region is aligned with a left side of a lower transparent region adjacent thereto.

7. (Original) The device according to claim 1, wherein a size of the transparent regions of the mask is equal to or less than $1/3$ of a size of a pixel in the display panel.

8. (Original) The device according to claim 1, further comprising a controller converting a portion or all of the convertible regions into transparent regions depending upon a number of parallax images.

9. (Original) The device according to claim 8, wherein the controller converts all of the convertible regions into transparent regions, when the number of parallax images is 1 or 0.

10. (Previously presented) The device according to claim 8, wherein the controller converts a portion of the convertible regions into transparent regions, when the number of parallax images is less than a predetermined number of the parallax images.

11. (Previously presented) The device according to claim 8, wherein the controller controls a distance between the display panel and the mask depending upon a distance between a viewer and the mask.

12. (Currently amended) A three-dimensional image display device, comprising:
a display panel simultaneously displaying a plurality of parallax images;
a mask formed of a liquid crystal display panel having segments forming transparent regions and convertible regions alternatively aligned along a horizontal direction, and formed in front of the display panel; and
a controller determining transparent regions and opaque regions of the mask depending upon a number of the parallax images,
wherein the transparent and convertible regions of the mask correspond to the at least one parallax image of the display panel.

~~wherein a portion of the convertible regions that do not correspond to having no at least one parallax image becomes become~~ transparent and ~~a portion of the convertible regions that correspond to having at least one parallax image~~ images becomes become opaque, and

wherein the transparent regions of the mask are changed with a displacement in direction along a perpendicular direction.

wherein the length for a segment of the transparent region is $p(D-d)/D$ and the length for a segment of the convertible region is $(n-1)p(D-d)/D$ where n is the number of parallax images, p is a pixel dimension, D is the distance from a viewer to the mask display panel, and d is the distance from the mask to the display panel.

13. (Original) The device according to claim 12, wherein the controller controls a distance between the display panel and the mask depending upon a location of a viewer.

14. (Previously presented) The device according to claim 12, wherein the controller increases a number of parallax images when the number of parallax images is less than a predetermined number, and reduces the number of the transparent regions and the number of the opaque regions when the number of parallax images is greater than the predetermined number of parallax images.

15. (Previously presented) The device according to claim 12, wherein the controller reduces a size of the opaque regions when the number of parallax images is less than a predetermined number of parallax images, and increases the size of the opaque regions when the number of parallax images is greater than the predetermined number of the parallax images.

16. (Original) The device according to claim 12, wherein the controller determines the size of the opaque regions to be larger than that of the transparent regions.

17. (Currently amended) The device according to claim 12, wherein the controller detects ~~a portion of the convertible regions that do not correspond to at least one having no~~ parallax image.

18. (Currently amended) The device according to claim 12, wherein the controller determines a portion of the mask that does not correspond to at least one ~~having no~~ parallax image of the convertible regions to become transparent regions.

19. (Previously presented) The device according to claim 12, wherein the transparent regions and the opaque regions within the mask are aligned alternately along a horizontal direction, and the upper and lower transparent regions are not aligned along a vertical direction.